

# CHAMBERS'S JOURNAL

OF

POPULAR

LITERATURE, SCIENCE, AND ART

Fifth Series

ESTABLISHED BY WILLIAM AND ROBERT CHAMBERS, 1832

No. 719.—VOL. XIV.

SATURDAY, OCTOBER 9, 1897.

PRICE 1½d.

## CHRISTMAS NUMBERS OLD AND NEW.

THACKERAY in one of his *Roundabout Papers* remarks how we have all admired the illustrated papers, and noted how boisterously jolly they become at Christmas-time. He suggests that we ought to feel very grateful to the folks who begin their preparations months before to supply us with pictures of wassail bowls, robin red-breasts, waits, snow landscapes, and bursts of Christmas song; as grateful as we are towards the cook who gets up at midnight and sets the pudding a-boiling for next day's consumption. Those concerned in the production of magazines and illustrated papers still seem to think, like the bakers and confectioners, that the rate of consumption of highly-spiced literary fare is much greater at the Christmas season. Even *Punch* distributes a few more jokes at this time. Now, too, the monthly illustrated magazine swells out to twice its usual size and price; and that and the illustrated weekly both take care to inform us that the literature and pictures are provided by the very best writers and artists of the day. Therefore, all are the best—at least we may count on getting what is in vogue, in both literature and pictures; quite a change from the kind of thing which Thackeray, and Dickens especially, thought suitable for Christmas season.

Although we may not care to admit it, we are indebted to the pen of Washington Irving for conserving in his *Sketch Book* those pictures of old Christmas in England which are already memories of the past. Rural England was never described in a more charming way than by this American writer, who could write 'decent English.' When he transmitted No. V. of his *Sketch Book*, containing 'Christmas,' to his brother Ebenezer in America, the latter was so far disappointed at finding less of the story and pathetic element than in previous numbers. The author explained that this had cost him more trouble and more odd research than any of the rest. It was written for peculiar tastes, and for those who were fond of what was quaint in literature and

customs. The scenes there depicted were formed upon humours and customs peculiar to the English, and illustrative of their greatest holiday. For the old rhymes he had been indebted to many curious volumes in the British Museum. Hagley, in Worcestershire, the seat of Lord Lyttelton, was the background for these sketches of old Christmas customs, as related in 'Christmas Eve' and 'Christmas Dinner.' This much we learn from a note in his nephew's biography. At first ascribed to Scott, his most useful and powerful literary friend, these have taken their own place in English literature.

The impulse which Charles Dickens gave to Christmas literature has not yet died out, although it has assumed different forms. At first, disappointed with the monetary returns of the *Christmas Carol*, Dickens had every reason to congratulate himself on the moral result of his sermon against selfishness. 'You should be happy yourself,' wrote Lord Jeffrey, 'for you may be sure you have done more good by this little publication, fostered more kindly feelings, and prompted more positive acts of beneficence than can be traced to all the pulpits and confessionals in Christendom since Christmas 1842.' This is strongly stated, but it is at least a testimony of the universal hold that this contribution to Christmas literature had taken. To Thackeray it seemed a personal kindness to every man and woman who read it. Those who later heard the author read his own production were also powerfully impressed. Fond of old Christmas tales, Dickens felt that in the *Carol*, *Chimes*, and *Cricket on the Hearth* he was giving them a higher form. Disappointed at first in the sale of *Martin Chuzzlewit*, which he thought his strongest book up to the time of writing, he began and finished the *Christmas Carol* in the brief interval of leisure between the writing of two numbers.

Forster tells us that Dickens had been in Manchester in the beginning of October 1843, where he presided at the opening of the Athenæum, and spoke of the education of the very poor. There the fancy occurred to him which is embodied in the

*Carol.* He told Forster that during its writing he wept and laughed and walked thinking of it 'about the black streets of London many and many a night after all sober folks had gone to bed.' And when it was done he let himself 'loose like a madman.' Published a few days before Christmas 1843, the first edition of 6000 was sold the first day, and another 2000 had gone of the second and third editions by the beginning of 1844. With the prospect of going soon abroad, Dickens had set his heart upon earning £1000 by this venture, and was disappointed when the returns from Chapman & Hall's account only showed a balance in his favour of £726. When the *Chimes* and *Cricket on the Hearth* came to be published they doubled the sale of the *Carol*; but finding the price of five shillings too high for the public to whom he appealed, and the sale too small to remunerate the outlay, at a later date he adopted the cheap paper cover, extra double number form, of *All the Year Round* as the vehicle for these Christmas fancies. The sale of *Doctor Marigold's Prescriptions* for the first week was 250,000. The other extra numbers appear to have done quite as well. Probably Mr Forster was right when he said that these volumes of Dickens carried to countless firesides, with new enjoyment of the season, a better apprehension of its claims and obligations, and mingled grave with glad thoughts, much to the advantage of both.

The illustrated weekly papers did their duty in keeping up the traditional feeling regarding Christmas, which Thackeray, as we have seen, noted in one of his essays. This was especially the case with that pioneer of illustrated weekly journalism, the *Illustrated London News*, founded by Mr Herbert Ingram in 1842. Mr Mason Jackson, in almost a lifetime's retrospect in connection with illustrations, tells us that in 1856 Dr Charles Mackay, the editor and manager of this paper, asked him to get up the illustrations for a Christmas number, and this he continued to do for several years. After he joined the permanent staff of the paper he found the preparation of the Christmas numbers one of his most congenial duties. These always commanded a large sale. Thirty years ago the Christmas number of the *Illustrated London News* consisted of the ordinary weekly issue enlarged to a double number, only half of which was devoted to Christmas. The special extra numbers of to-day were not invented, he tells us, until a later date.

Few people have any conception of the amount of planning, care, time, money, artistic and literary talent necessary to the production of one really good Christmas number. In dealing with Christmas numbers of any artistic merit, such as those of the *Graphic*, it is always necessary to consider the time it will take for its production; consequently the printing is invariably started about twelve months in advance. This was the case with the Christmas number of the *Graphic* for 1880, with which was presented the celebrated picture 'Cherry Ripe' by Millais. Of this number considerably over half-a-million copies were printed, and, notwithstanding the efforts made to meet the demand, the publishers were ultimately compelled to return thousands of pounds to the trade for orders they were unable to execute. This particular number was printed in seventeen colours; each colour was printed separately, and was allowed to dry

before another was added, which necessitated nearly ten million impressions before the work could be completed. The weight of paper used for this issue was 200 tons, and between 300 and 400 persons were more or less constantly engaged in its production. For the purpose of the necessary preliminary advertising, nearly a million handbills, contents sheets, specimen plates, trade notices, &c., were issued, besides framed copies of the principal plates on exhibition at every railway station in the United Kingdom.

The *Windsor Magazine* introduced an innovation in 1895, and presented to its subscribers a reprint of a separate book by Dr Conan Doyle. The popularity of this feature led the proprietors to present with the Christmas number for 1896 another complete story, by Guy Boothby, in addition to 162 pages of the magazine itself. The preparations for the coming Christmas number began in March of this year. The *Strand* and *Pearson's* also largely increased the size of their Christmas issues, and doubled the price.

We need scarcely follow up the subject further, for have not extra Christmas numbers been legion? And the coloured pictures from some of them are to be found framed in cottages over the civilised world. The accompanying literature has also, doubtless, fulfilled its purpose of entertainment, and has been a message of hope and gladness to many a reader.

Mr James Payn, while editor of *Chambers's Journal*, passed eight of these extra numbers through his hands, to six of which he contributed the interesting and amusing introductory framework, and various stories suitable to the occasion. The titles of some of these extra numbers partly explain their contents. A New Year's number for 1864, 'In the Box,' comprised stories supposed to be told by jurymen, who spend the four hours between 5 P.M. and 9 o'clock, while locked in the jury-room and before returning their verdict, in telling stories. This is a fancy worthy of Mr Payn; only we expect most jurymen would have tried to have the verdict of *Not guilty* returned somewhat earlier. 'Tenants at Will' (Christmas 1864), as being reports from the agents of the Society for the Re-establishment of the Character of Haunted Houses, may have interested Mr Stead, the Psychical Society, or the tenant of the haunted house near Dunkeld. Miss Frances Browne, Mr Speight, and Mr J. B. Harwood assisted at this symposium. 'Waiting for the Host' (1865) describes the ingenious manner in which a company entertained one another when the host and hostess were unavoidably detained three hours behind time on a railway journey. Mr Payn, Mr J. B. Harwood, and Miss Frances Browne supplied most of the stories, the editor being responsible for the framework. Mr Leslie Stephen supplied the framework and some of the stories for 'Up and Down Mont Blanc,' the Christmas number of *Chambers's* for 1866. *Under one Roof; The Extraordinary; Begumbagh* (1869), by George Manville Fenn, since issued in volume form; and *The Winning Hazard* (1870), by Frederick Talbot, complete the list of these Christmas numbers, every one of which had an extensive sale.

It is therefore twenty-seven years since an extra Christmas number of *Chambers's Journal* was issued. This year, however, it is our intention again to issue a special Christmas number of

*Chambers's Journal*, which will form the December part of the magazine and will be published about the end of November; this part will also contain the title and contents for 1897, as in future we propose completing the volume with the part published on December 1st.

READY DECEMBER 1, 1897. Price 1s.

## CHRISTMAS NUMBER

OF

## CHAMBERS'S JOURNAL,

BEING DECEMBER PART AND EXTRA XMAS NUMBER.

*In addition to numerous articles of general interest, and the usual supply of fiction by other writers, this part will contain complete stories by—*

GUY BOOTHBY,

J. ARTHUR BARRY.

W. E. CULE, &c.

## A TSAR'S GRATITUDE.

### CHAPTER XXIX.

PHILIPPOF was wrong in supposing that the president of the inner circle had forgotten to take him into consideration. On the contrary, old Karaool had made careful disposition for Sasha's share in the events about to take place. There was, as Philippof had anticipated, a gentleman already in waiting upon the quay outside, whose double duty was to see that Doonya did not escape, and to execute a somewhat delicate commission with regard to Sasha himself. If Philippof appeared to-night he was to accost him, and to give him the cordial invitation of No. 1 to join that branch of the brotherhood of which his friend Smirnof had been a member. There should be honourable work for him. He might even be given a hand in the theatre enterprise, when he would naturally be delighted to find so easy a means of carrying out that which, of course, must be his mind, considering the treatment he had suffered at the hands of authority. If Philippof showed no signs of complying with this invitation, the emissary was very quietly to 'remove' Mr Philippof by the medium of a sharp knife between the shoulder-blades.

Philippof scarcely expected to be spoken to as he left No. 15 shortly after his conversation with Doonya, and stepped out upon the wharf. He had quite intended, however, to find and speak to the spy whom he suspected to be somewhere near, and it saved him the trouble of looking for him when a dark figure emerged from the shadow of a warehouse and a courteous voice hailed him.

'Mr Philippof?' asked the voice.

'The very man,' said Sasha. 'Whom do I address?'

'Katkof, emissary from the circle.'

'To whom?'

'To yourself.'

'But I am not a member of your society.'

'The circle has deputed me to invite you to join.'

'That is very kind of the circle,' said Philippof; 'but why?'

'They have work for you which you will appreciate.'

'And if I decline the honour?'

'Then there is another message.'

'I see,' said Sasha. 'Now, Mr Katkof, I am quite aware that you have in your breast-pocket, or in some other pocket, a knife, or perhaps even a pistol—no, no, don't trouble to show me just now. You see my own pistol is already pointed at your temple—you scarcely observed it in this bad light, did you? Very well; now I say to you, produce that knife, or that pistol, and drop it into my hand—quickly, please—so. Have you another? No? Are you sure? Very well; now follow me.'

Philippof turned the corner of the grain warehouse in whose shadow Katkof had lurked, took a key from his pocket, and unlocked the big door. Then he pushed the astonished and alarmed Katkof into the wheat-strewn interior of the granary. 'There,' he said; 'good-night. I shall recommend you to remain here in absolute silence, for the night-watchman is instructed to keep a special look-out for grain-thieves, and has a duplicate key. He is to shoot the next thief he finds, by special request of the police, who are anxious to provide a warning to these miscreants. Good-night, my dear Mr Katkof, again; I shall hope to see you in the morning.'

Then Philippof returned for a moment to the lighter, and whispered down the companion. 'Doonya,' he said, 'look here! Doonya appeared, frightened and startled to see Sasha returned. 'Look, Doonya!—the first spoils of war!' he said, and handed down Katkof's knife—a terrible-looking blade. 'Its owner is in warehouse No. 84, half-dead with fright. Keep this by you in case of accidents. To-morrow morning I shall drop in while the doctor is with you. You may expect me without fail. Things are going splendidly so far! Good-night, my Doonya!'

Philippof returned early in the morning. There was a lighter lying ready loaded, which must be despatched as soon as possible after daylight. Philippof boarded the craft at half-past five and aroused Gregory, the skipper. 'Gregory,' he said, 'I have a passenger for you. He is not very anxious to go, but—you understand—he is going. He can lie on the wheat in the hold. Don't mind if he is a bit angry and says cross things. Don't let him out till you get back here. Pop him in the cabin while you discharge your goods, and batten him down. If he is noisy you can do as you please—whip him, if you like. He is a grain-thief; I have caught him in the warehouse.'

This last explanation was quite enough for Gregory. A grain-thief was in his eyes the greatest offender under the sun; and when Philippof brought out the wretched Katkof and stowed him away in Gregory's hold, he was very certain that Katkof would be well taken care of by the irate skipper, and that, if he attempted to escape or make a noise, there would be some head-banging done by Gregory, who, like all those employed upon the grain wharf at St Petersburg, was an immensely powerful man.

So Philipof brought his prisoner on board, having first solemnly warned him, and bade him consider himself under the orders of Gregory, the skipper, until further notice. Katkof was chilled to the bone and thoroughly cowed by his night in the warehouse, where the rats had frightened him nearly out of his wits, and obeyed his new captain without a murmur. Gregory ordered him into the hold, and swore many Russian oaths to the effect that if his head once appeared above the level of the deck, that instant it would be caved in with a hand-spike or something equally hard and unpleasant. Then Gregory and his barge and his prisoner departed on their journey to Cronstadt; and if there was a bewildered man upon this planet that morning, it was Katkof when he began to reflect at his leisure upon the sudden and totally unexpected change in his fortune and prospects.

Philipof was busy among his lighters, but he observed Kirilof arrive at about ten o'clock in the morning, and after a cautious look around from the lee of a warehouse, dart across the quay and into the cabin of No. 15.

Sasha gave him five minutes there, and then followed him. Doonya was in tears. Kirilof had already contrived to frighten or bully her into this state, which must be forgiven Doonya because her nerves had been terribly shaken on the previous day, and she was not quite herself. She stopped crying very suddenly, however, when Philipof appeared, and the joy which overspread her face at the sight of her sturdy friend descending the ladder formed the exact counterpart to the look of disgust which passed like a cloud over Kirilof's face when Sasha made his unexpected and unwelcome appearance.

'Ah, Kirilof the doctor!' said Philipof; 'the very man of all others that I desire to see.'

'Sorry I can't return the compliment,' said Kirilof rudely; 'I have serious private business to discuss with this lady.'

'Well, well, it must wait,' said Sasha quite heartily, 'for my own is, I dare say, still more important—to one of us at least—no, no, don't argue until you have heard me out; it is, I assure you, a matter of life and death.'

'Life and death,' repeated the Doctor, flushing and glancing angrily at Doonya, who, he quickly concluded, must have betrayed the secrets of the brotherhood; which, indeed, was, undoubtedly, the case. 'I don't know what you are referring to: whose life and death?'

'Oh, not Doonya's. Why do you glance at her? There is no question of life and death for her. No, no, my friend; you will be shocked to hear it, but it is your own neck which is in danger.'

Kirilof started to his feet. 'What are you talking about?' he muttered, paling white with sudden terror and fumbling in the pocket of his greatcoat.

Philipof was quite cool. 'Just one moment,' he said quietly. 'Have you a weapon of any kind about you? If so, may I trouble you? My own, you see, is pointed at your brain-pan or thereabouts. Perhaps it would be simpler if you were to raise your hands above your head—so. Thanks. Now, Doonya, see what the good Doctor keeps in his greatcoat-pocket.'

Doonya, very pale, obeyed, and produced a

revolver, which she handed to Philipof, who pocketed it with his left hand.

Kirilof looked only half-alive with terror and amazement.

'Now,' said Philipof, 'we can proceed to business. Do you know, my dear Doctor, that you are in an extremely critical position? Not only you, of course, but the entire community to which you belong! Your secrets have been betrayed.'

Kirilof glanced at Doonya, and muttered a horrible oath between his teeth.

'Ah, don't blame the lady,' continued Sasha pleasantly; 'it was all my fault. I got it out of her. I have such a way with me, you know! Well, I know all about the business—some of your names and addresses—yours, for instance—and all kinds of useful details. His Majesty the Tsar will be entertained to hear of the little affair arranged for next week.'

Kirilof gave a groan and looked for a moment as though he would faint, but recovered.

'You would never dare,' he muttered. 'And besides, you would not obtain access to the Tsar; and if you did he would believe nothing from you. You are a suspect, you must remember. Neither the Tsar nor his police would take a warning from you. You would be seized and tortured, that's all!'

'Nonsense, man,' said Philipof; 'they would at least verify names and addresses. Besides, you forget, my friend; our little Smirnov's Act is in the Tsar's hands by this time; he will be thinking very differently of me.'

'You will die a thousand deaths at our hands before you are allowed to betray us,' said Kirilof. 'You little know what our inner circle can do. This branch of ours is but a twig of the great tree of Nihilism; its ramifications extend over all Russia. Make one step towards betraying us, and you are a dead man—I warn you.'

Philipof snapped his fingers. 'That for your inner circle!' he said. 'Do you know Katkof? Ah! I see you do. I see also that you were surprised to observe me arrive this morning. You were aware, no doubt, of Katkof's mission last night? Well, Katkof has mysteriously disappeared. There is another inner circle, you perceive, working independently of yours. Tomorrow folks will wonder what has become of Kirilof.'

The last-named groaned again. 'You have me in your power, I admit,' he said; 'but I warn you that anything you may do to me will be terribly avenged upon yourself and Doonya here.'

'My dear man, you go too fast,' said Philipof, with undisturbed coolness. 'I do not suggest that evil will befall you; I merely say that folks will wonder what has become of Kirilof. There will, I trust, be nothing to avenge; that will depend upon yourself. But it is no real comfort to a man whose throat is being cut to reflect that some one will avenge him—now is it?'

'What do you want of me?' asked Kirilof savagely.

'Ah, now, that is spoken like a sensible man. It is, you see, a mere matter of business, a plain *quid pro quo*, the principle which is at the root of all business transactions. I make you a present of your neck, you give me an equivalent; and,



what is more, I am sure the transaction will be as delightful to yourself as to me. I assure you that I have no wish to harm you. Now, listen to me, and we will settle this little matter in no time.'

## CHAPTER XXX.

'In the first place,' Sasha continued, 'you will not, I am sure, be surprised to learn that Doonya would never for one moment entertain the idea of performing certain dirty work contemplated at the Grand Theatre. It is an insult to have suggested it to her; but we will pass over that for the present. The alternative is, of course, the chloroform bottle, or, to put the matter in another form, a certificate of death from yourself.'

Kirilof started. 'I see,' he said; 'I understand what you want of me. It is impossible.'

'Nothing is impossible to those whose necks are already encircled by the rope,' said Philipof significantly.

'They might insist upon seeing the corpse; in any case there would have to be a burial. It is impossible.'

'I think all this can be arranged. You are a clever practitioner, I am told. Doonya will not object to play the part of corpse for a short while, in case a personal view is insisted upon. You will have to arrange this, for I solemnly assure you it is your own life and death that are in question. As for the burial, how are these affairs usually managed in similar cases?'

'The society does not interfere. The death certificate is provided by its agents, but the funeral is arranged by the friends of the deceased.'

'Capital! Now, Doctor Kirilof, you have a great part to play in this matter, and you will see the necessity of acting with appropriate caution. In the first place, all three of us remove ourselves this evening to Doonya's lodging. Meanwhile your patients will excuse your attendance upon them this morning and afternoon. I cannot bring myself to part with you. The death certificate will be sent by messenger to its destination, and we shall be prepared, during the night, for the personal inspection you seem to expect. When that is over and the delegate from your inner circle friends has departed, satisfied that our poor Doonya is no more, we shall all three be free to depart upon a little cruise I have arranged for—no, don't raise objections; it will be for your own safety. You are a man of sense, and will understand that this is so.'

Apparently Kirilof was not a man of sense, for he fumed and swore and raved and threatened for five full minutes in a manner which would have alarmed Doonya very much if she had not had Philipof's unmoved coolness to support her. At length Kirilof calmed down again, and sat in his place crying weakly.

'Come now,' continued Philipof, 'let me put the matter in a nutshell. Doonya is not going to commit suicide, nor to take part in bloody plots against other persons: point 1. Therefore a certificate of her death is required—which you are to provide: point 2. The society is to be satisfied of her death: point 3. We escape on board an English steamer, but not before I have acquainted the authorities with all details of the attempt to be made at the

theatre, as well as of the existence of the brotherhood and the names of the members. Your conduct in aiding me to expose this plot shall be favourably mentioned, and if you return to this city after your trip, you will return as the protected of the authorities, and you will have no one left to fear. You will say that I am unnecessarily officious in exposing this society. I reply that they are the cold-blooded murderers of women and innocent persons, and that I war against them as I would stamp out a wasp's nest. I have not much reason to side with authority, as it happens; but I am no conspirator and wish the Tsar no evil. Now for the alternative to my proposal. You and I drive at once, with Doonya, to the chancellery of the Third Section. There we deposit Doonya for safety, and there I deliver up yourself into the tender mercies of those who will know how to induce you to tell them a great many things they will be interested to learn. I shall state the whole truth of this affair as far as I know it. I am not sure that I ought not to take this course at once; it would, I believe, be the right thing to do. Indeed, I'—

'No,' interrupted Kirilof, whose face was the colour of milk, and whose limbs had begun to shake like leaves as Philipof uttered his last sentence; 'no—anything but that! I believe your plan is frightfully dangerous, but of the two it is the better one; it shall be as you propose.'

'There speaks the man of sense,' said Sasha encouragingly. 'Kirilof is on our side, Doonya; congratulate him!'

As a matter of fact, Sasha was well aware of the danger and difficulties of the plan he was about to put into execution; but the alternative of going straight to the police was, he knew, even more perilous, since the police were at this moment in search of Doonya, and would not be inclined to place much credence in her sudden defection from the revolutionary society of which she was now known to be a member. As for Sasha's own character at the police department, it was not, as we know, of the highest; and his championing of Doonya's cause would not be likely to strengthen, but rather to damage, that cause in the eyes of the authorities. Therefore Philipof greatly preferred to arrange for Doonya's safety in his own way, and without the assistance of the police; and he was proportionately glad when Kirilof, by agreeing to adopt his plan, relieved him of the necessity of taking the more dangerous alternative.

'And now, my good Doctor, we will leave Doonya to her reflections,' continued Sasha. 'You are my guest for the rest of the day; and at eight in the evening Doonya will meet us at her lodging. Farewell, Doonya, for the present! Be punctual, my dear; for you must be dead and buried before the morning!'—with which grim joke Philipof took his departure, followed by Kirilof, who was still too sore and angry to pay Doonya the compliment of saluting her.

'I see you are still angry—very unwisely angry,' said Sasha as the two men walked away down the quay, 'for you will be well quit of this detestable society, believe me, Kirilof; and you will bless me one day for delivering you from its meshes. You would be bound to come to a bad end, you know.'

'I wish I could see anything but a bad end to

this cursed business!' said Kirilof. 'It seems to me you are playing the part of a madman; I know no one who has crossed the will of our inner circle and lived!'

'Pooh, pooh! We shall be the first to overcome that fearful body, then. Now, there is just one thing, Kirilof. You see—at least you may see if you look—I continue to hold my revolver in my hand, and my hand in my greatcoat-pocket. I can shoot without withdrawing the weapon, through the cloth, and I am a very good shot. Don't try to escape, my man, or to play the fool; it would spoil our plans, as well as suddenly end your career, both of which would be a pity.'

Kirilof only scowled. As a matter of fact, however, he had no intention of attempting to escape, for he was quite persuaded that, of the two evils before him—namely, the police and Philipof's plan—the latter was undoubtedly the lesser. Moreover, on thinking the matter over, the Doctor had become aware that he would be extremely glad, as Philipof had suggested, to be rid of the brotherhood and safely out of its meshes, if this could be effected. He had drifted, like many others, into his present position, and had little real sympathy with the extremists and terrorists. In a word, the more he contemplated Philipof's plan the more anxious he became to carry it, for his own sake, to a successful issue; and Sasha had the happiness of feeling assured before long that there was nothing to fear from Kirilof, who had unexpectedly become, or was quickly becoming, a zealous convert to his views.

Nevertheless Philipof did not allow his new ally out of his sight during the whole of that day. When evening came, and Doonya had safely reached her lodging, under cover of darkness, and was there duly met by Sasha and Kirilof, the death-certificate was made out and despatched, under sealed envelope, to the president, together with a note from Kirilof requesting to know whether it would be necessary to hold an inspection of the body, and if so, at what time.

It was an anxious interval while the messenger was absent, and the three conspirators awaited the answer to Kirilof's missive. If it should be the will of the chief to view the body, Kirilof knew what he would do, and to his plan both Sasha and Doonya were obliged to agree, because it would be difficult to substitute a better: Doonya would have to be drugged into a death-like condition of unconsciousness. Since this would be a dangerous process, and since awkward hitches might so easily turn the attempt into utter failure, all three of those concerned ardently hoped that the chief would be satisfied with the certificate and would not insist upon a personal visit.

Fortunately for all parties, the confidence of old Karaool in his Mercury was unbounded. He did not in the slightest degree suspect his good faith, nor did it for a moment suggest itself to him that Doonya was other than dead and done with, as per certificate. He therefore sent a reply to the effect that he was satisfied, and that Kirilof had better not go near the lodging of 'the suicide' again, because the police would be sure to be on the spot before long.

This message gave Philipof an idea. 'Why shouldn't they suppose that the police have got you, Kirilof?' he asked. 'That would save

you the trouble of keeping out of the way of the society's bloodhounds until such time as we can leave the country.'

Kirilof approved of the idea, and a note was written to Karaool by Philipof, whose writing was unknown to him, acquainting him with the news that Kirilof had been captured, and Katkof the spy also. The letter was unsigned, and purported to come from 'One who knew.'

Afterwards, at dead of night, Doonya returned to No. 15 barge, and pitched her tent once more in the tiny cabin of that gallant vessel, to the joy of Ivan and his wife, upon whom was impressed the fact that, if they had been careful before, they were to be a hundredfold more careful now, lest her presence should be discovered.

Kirilof was given sanctuary upon another lighter about to start for Cronstadt. There was now no danger to be anticipated from defection on his part, for he had hopelessly committed himself by deceiving the chief, and this offence would certainly never be forgiven. If he returned into the society he would undoubtedly be presented with a green ticket. Taking one consideration with another, there was nothing to fear from Kirilof; and Sasha despatched him and his lighter to Cronstadt upon the usual fortnight's trip without a pang of anxiety.

As for himself, Philipof had work to do in town, and did not accompany his confederates to Cronstadt. His scheme for escape to England or elsewhere was maturing in his mind; but until after the date of the gala performance at the Grand Theatre he was determined to make no move. Doonya and Kirilof were both safe. For himself he was not afraid; he was as capable of looking after his own skin as most men. There was still nearly a week before the day appointed by the terrorists. During that week he must find occasion to do that which he knew must somehow be done, and done by him; for if he did not warn the Tsar of the danger impending, who else either could or would do so?

## TEACHING A FINE ART.

By Rev. E. J. HARDY, M.A.,

Author of *How to be Happy though Married*, &c.

WHEN Franklin made his discovery of the identity of lightning and electricity people asked, 'Of what use is it?' The philosopher's retort was: 'What is the use of a child? It may become a man!' It may become a man or a woman capable of any amount of goodness and service—this is a consideration that should make us reverence every child. Who can tell the possibilities that are buttoned up under that boy's jacket or that girl's pinafore? When Trebonius, the schoolmaster of Luther, came into his schoolroom he used to take off his hat and say: 'I uncover to the future senators, counsellors, wise teachers, and other great men that may come forth from this school.' So, too, General Garfield, a great and good President of the United States, frequently remarked that he never passed a ragged boy in the street without feeling that one day he might owe him a salute.

If a child be thus valuable, surely the work of him or her who trains him up in the way he should go ought to be very highly esteemed. It

is difficult, and sometimes impossible, to influence for good and improve the characters of adults, but almost anything may be made of a child. The twig will grow as it is bent. If, then, we set a proper value on those who contribute to the prosperity of the State, we ought to place in the first rank those who teach children, whose labours influence posterity, and on whose precepts and exertions the welfare of our country in a great measure depends. 'He who opens a school,' says Victor Hugo, 'closes a prison.' If 'she who rocks the cradle rules the world,' so does she who moulds the future years of the life of the rising generation. Wise teachers are the spiritual fathers and mothers of the human race. The Jewish Rabbis had so profound a sense of the dignity of instruction that they tell how once, when all the greatest priests and Pharisees had vainly prayed for rain in the time of drought, at last one man arose, who was humble and poorly dressed, and no sooner had he prayed than the heavens became black with clouds and the rain fell. 'Who art thou,' they asked, 'whom God has thus answered?' 'I am a teacher of little children.'

Certainly the popular appreciation of the teacher's calling is not what it ought to be. When we reflect that that calling is one than which there is none higher or holier, we cannot but feel indignant at the way vulgar rich people sometimes treat the tutors or the governesses of their children. Speaking of the education of girls, Mr Ruskin asks: 'Is a girl likely to think her own conduct or her own intellect of much importance when you trust the entire formation of her character, moral and intellectual, to a person whom you (mothers) let your servants treat with less respect than they do your housekeeper (as if the soul of your child were a less charge than jams and groceries), and whom you yourself think you confer an honour upon by letting her sometimes sit in the drawing-room in the evening?'

It must be confessed, however, that one of the reasons why teachers are not more highly esteemed is because so many of them begin to teach without qualification for that most responsible task. 'Fools rush in where angels fear to tread.' Sidney Smith used to say that there were three things which every man thinks that he can do—farm a small farm, drive a gig, and write an article for the *Times*. The witty canon of St Paul's might have added a fourth thing which every man and certainly every woman think that they can do, and that is to teach children. They may have failed at everything else they have tried, but they never doubt that they will succeed as teachers. You may tell them as often as you like that people must be taught to teach, that teaching is a fine art, and one very difficult to learn, but they will not believe you.

Of course the more knowledge a teacher has the better, but we may have much knowledge and not be at all capable of imparting it. Education does not mean putting information into a child's mind, but drawing out his faculties to the highest development, and this is a task which can only be accomplished by the possessors of very fine moral qualities. A man may be a great scholar but quite unable to maintain discipline because he lacks firmness and weight of character. His pupils do not respect him, and he has no influence upon them. Children and horses feel instinctively

when they are in the hands of one who cannot manage them:

O'er wayward children wouldst thou hold firm rule,  
And sun thee in the light of happy faces?  
Love, Hope, and Patience—these must be thy graces,  
But in thine own heart let them first keep school.

He or she who does not love and reverence children will not have that genuine sympathy which is necessary in order to understand them. Some teachers seem to be incapable of thinking back on their own early youth, and give their pupils the impression that they have always been grown up. Feeling in this way not understood, or misunderstood, a child has not courage to state his difficulties. The result is that explanations like that of a certain mother are given. She was reading to her little boy, and stopped every now and then to explain and to ask him if he understood. 'Yes, mummy, I do when you don't explain.'

A teacher should know when his assistance is required, and when, not being required, it should not be given. As much as possible should be done by children themselves, and as little as possible for them. A good teacher does not think out the lesson for his pupils. Rather he becomes the cause of thinking in them, knowing as he does that 'Easy come, easy go' is a saying quite as applicable to knowledge as to wealth. Sympathetic imagination is required by teachers to note the difficulties of pupils from their point of view. It is not enough to repeat explanations in the same words. A child may see a thing in one light and not in another; and here there is room for great ingenuity in discovering more and more intelligible statements—in ringing the changes of explanation.

After love the next thing that is most necessary in a teacher is hope. His creed should be that of the late head-master of Uppingham School, who used to say that every boy is good for something. In an address to an association of teachers the present head-master of Harrow said: 'Looking back over my own school-days, as I recall the names not only of the gifted popular boys who have come to grief, but of other boys who led poor, valueless lives then, as they seemed to be, and yet have been reclaimed in after-time by one cause or other, it is forced upon me, as a truth I can never forget, that not even the lowest boy is incapable of the highest good. That is why there is one word, though only one, that I have simply begged my colleagues never to use in their reports of boys—the word "hopeless." Masters and mistresses may perhaps be hopeless—I cannot tell; but boys and girls—never.'

The last sentence reminds me of a retort which a 'dull' student once made. Professor: 'You seem to be very dull. When Alexander the Great was your age he had already conquered the world.' Student: 'Well, you see, he had Aristotle for a teacher.'

Since the days of Sir Isaac Newton there has not arisen a greater man of science than Charles Darwin, and yet he was considered by his father and schoolmasters as 'a very ordinary boy, rather below the common standard in intellect.' 'To my deep mortification,' he tells us, 'my father once said to me, "You care for nothing but shooting, dogs, and rat-catching, and you will be

a disgrace to yourself and all your family.' Young Darwin had 'strong and diversified tastes.' So has many a boy who is considered dull and stupid because his tastes do not coincide with those of his companions, or are not of the kind that his parents and teachers consider most profitable. The boy Darwin was called 'Gas,' because, with his brother, he got up a small chemical laboratory in the tool-house of the school garden, and spent his leisure hours there making gases and compounds instead of joining the boys in their games. He was also publicly rebuked by the head-master for wasting his time 'on such useless subjects.' Darwin the philosopher has taught us that evolution is a slow process, and his teaching was exemplified in Darwin the boy.

A gentleman happened to be in a school when a spelling-lesson was going on. One little fellow stood apart, looking sad and dispirited. 'Why does that boy stand there?' asked the gentleman. 'Oh, he is good for nothing,' replied the school-master. 'There is nothing in him. I can make nothing of him. He is the most stupid boy in the school.' The gentleman was surprised at this answer. He saw that the teacher was so stern and rough that the younger and more timid were nearly crushed. He said a few words to the scholars, and then, placing his hand on the noble brow of the little fellow who stood there, remarked, 'One of these days you may be a fine scholar. Don't give up, but try, my boy, try.' The boy's spirit was aroused. His dormant intellect awoke. A new purpose was formed. From that hour he became studious and ambitious to excel. And he did become a fine scholar, and the author of a well-known commentary on the Bible, a great and good man, beloved and honoured. It was Dr Adam Clarke.

Genius has been defined as 'long patience,' but this definition would suit equally well good teaching. If in instructing a child you are vexed with it for want of adroitness, try, if you have never tried before, to write with your left hand, and remember that a child is all left hand. 'Why do you tell that blockhead the same thing twenty times over?' asked some one of Mrs Wesley, the mother of John Wesley, when she was teaching one of her children. 'Because,' was the reply, 'if I told him only nineteen times, I should have lost all my labour.'

He or she who is not a student of human nature must fail as a teacher. The early Jesuits, who were masters of education, were accustomed to keep secret registers of their observations on their pupils; and generations afterwards, when these records were examined, it is said the happy prescience of their remarks was proved by the subsequent careers of those who had been noted.

Another practice of these Jesuits was to hand over the youngest and least advanced pupils to the best teachers. This was wise; for, while any one with industry, a good memory, and a fair amount of brains can by cramming obtain sufficient knowledge to instruct in the mysteries of the 'higher education,' there are not many who possess such gifts of mind and temper as enable them to deal wisely with little children, to develop their intellect and mould their characters. Infant education should be considered the highest branch of the profession of teaching. The worse the material, the greater the skill of the worker.

A lively manner (not a jumpy one) is essential to good teaching. Let the teacher who is always complaining of the inattention of his pupils sometimes ask himself, 'Have I given them anything to attend to?' The teacher must not be a lifeless note of interrogation. Rather he should be the match that fires the train of his pupils' thoughts. His questions will be suggestive, asked not to confound but to encourage. Of course this implies that the teacher should himself be a learner, else his mind would become lifeless and incapable of kindling thought in others. An able teacher is never satisfied with the knowledge that he may possess at any time during his career of teaching, but keeps himself in constant training by fresh draughts hastily snatched during recreation hours. And he has his reward in finding that his own mind is receiving the best possible culture; for, as the Latin proverb says, 'If you would be wise, read; if more wise, study; if wisest of all, teach.'

## O'ER SEA AND LAND.

### CHAPTER II.

THREE nights later there was a meeting of that same Chums' Club to which Miss Blake had made reference as likely to be an offence to her guardian. It was an opinion sufficiently well grounded, inasmuch as Mr Denovan objected 'on principle' to all clubs except White's and the Athenæum, which he was pleased to consider old enough and learned enough to be respectable. But the Chums' was neither old nor learned.

Only the other day I saw, sitting at a suburban concert, wrapped in a fur-lined coat and wearing the air of a well-to-do father of a family, one of the men who, a quarter of a century since, was a member of that band. Far enough removed from romance did the portly stockbroker look, as he leaned back in his chair and watched his son conducting an operetta of the lad's own composing. But early in the year '70—when the Franco-German war was still merely in the air, and long before the Queen had been proclaimed Empress of India, when the Nihilists were yet plotting against Alexander II., and electric-lighting was a thing of the distant future—Alfred Morley used to spend many of his evenings in the company of Ernest Mannerling and the rest of the sworn fraternity, entering with as much enthusiasm as the rest of his compeers into the concerns of their unique association.

For the Chums' Club had, at any rate, the merit of originality. Limited to ten members, each of whom must of necessity be less than thirty years of age, yet a partner in a mercantile firm and well endowed with this world's goods, the bond which united the brotherhood was of the strangest and simplest.

It consisted of a covenant, to which every man, on admission, appended his signature, to stand by each other in all emergencies, including those of a pecuniary nature. To this end each member undertook to advance any sum up to the maximum limit of five thousand pounds when such might be required to push the interests or defend the reputation of a comrade. And thus every Chum, driven to the end of his own resources, had always



forty-five thousand pounds at call, repayable at a time convenient to himself.

Thus far the requisitions had been few and of small amount. To-night, however, an important matter was upon the tapis, as Ernest perceived the moment that he entered the room—it was, in reality, merely one of the smoking-rooms belonging to a much larger club, of which the Chums constituted a kind of inner circle.

'What's up?' he inquired as he sat down and stretched out his long legs in an attitude more comfortable than graceful, addressing his inquiry to the world at large.

'Clements has made the call in full,' responded Tomkins, the honorary secretary; 'and there are differences of opinion upon the subject of payment,' he added, with one of his hearty laughs.

'Why, all the world knows that Hancox & Webber are more than shaky,' retorted Knox, who already looked heated with argument and rather angry; 'and I for one don't feel like giving away five thou', whatever Ellis may do.'

Richard Ellis, an enormously tall and correspondingly ugly giant, with—when he chose—the bluntest tongue and worst manners of any known man, grunted and went on stuffing a villainous-looking clay pipe.

'Certainly one can't help seeing the difference between lending to a man who is sure to pay and chucking one's money into the gutter,' observed Miller suavely from behind the cloud of smoke which half-concealed him. 'But still'—

'There's no "but still" about it,' Knox cried. 'I ain't going to do it. So there. And you'll agree with me, Mannering, I expect, if you've a grain of sense in you. Morris does, and so does Franklin.'

'I never said so!' 'Not I!' sounded simultaneously from a corner of the room where four men were playing whist; and Knox looked, for the instant, disconcerted.

'Then all that I can say'—he was beginning, when Ernest calmly interrupted him.

'It's in the bond,' he remarked quietly. 'Tomkins, I'll send you mine to-morrow. Come, Cynic, a Ceresus like you can dub upon the spot. Got your cheque-book with you? Now, gentlemen all, make your arrangements, please. There's a week's notice due if one cares to claim it; isn't there, Tomkins?'

It was thus that, at the appeal of the junior partner in the firm, the Chums' Club saved Hancox's bank—the debt, by-the-bye, being cleared off within a twelvemonth.

But that was a result which, of course, no one could at present predict. From which cause it came about that Ernest, as he walked with Ellis towards the latter's rooms that night, said suddenly with some anxiety, 'I hope Clem will be able to pay sometime.'

'Pshaw!' from the other. 'Right as nine-pence, or wouldn't have let the club in. Answer for Clem! See?'

Ernest laid an affectionate hand upon his friend's arm. They had known and loved each other from boyhood, though, with English reserve, their devotion seldom found expression by word or sign.

'Who wouldn't you answer for, old man? Why, I believe you'd even trust me, lawyer though

you be! But you needn't think me stingy. You won't when you hear my news.'

'Can tell it you fresh,' with curt assurance.

Mannering laughed.

'If ever I intended to make another bet I'd give you ten to one'—

'Benedict in prospect. Knew a week ago;' and he continued his onward tramp without a glance at Ernest, who gasped by way of response.

'Had some business at Shoreton ten days back. Tried to get hold of man named Ford. Been buying up land there, and wants some of the gov'nor's. Couldn't catch beggar, but passed two folks on the cliff instead. Saw it was a case.'

'Well, you are— But why on earth didn't you stop and speak?'

'Two's company, three's none,' laconically. 'Shouldn't wonder if you weren't having it out at that very moment. Any way, looked absorbed enough. Rather nice little girl, too.'

'She's just perfect,' answered the lover, in all seriousness. 'As to engaged—I wish we were! We understand each other. But there's a beast of an old uncle—and he's put me on probation and that sort of thing, don't you know? And if between now and November—and this is only March, mind—I don't behave myself like—like—well, a walking dummy'—

Ellis grunted—not an unusual form of reply with him, or so his traduceurs declared.

'Never met one. But here's place. Better come in and use language at the uncle in comfort.'

To which the other, who was yearning for a confidant, and for Ellis in particular in that capacity, readily assented. As a consequence the hum of voices—mainly indeed, it must be confessed, of Mannering's voice—continued in Ellis's room for the next two hours. Nor was it until at length he rose to leave that Ernest reverted to the subject of Clements.

'So now you understand why I can't very well afford to lose the cash,' he said. 'Of course I have something! Still, five thousand is a slice out of it.' Then rather gloomily, 'If things were as they ought to have been he could have had it and welcome.'

'When there's nothing better to do, sometimes speculate how that Indian fortune vanished,' remarked Ellis, who never by any chance used a needless syllable or dispensable pronoun. 'In lawyer's line to smell out riddles of that sort.'

'Got any fresh notions?' with a little eagerness. For Ellis, when he was pleased to give his mind to a problem, was not without a certain shrewdness of his own. Indeed, those who were best acquainted with the man were wont to declare that had he been born to poverty he would have grown up into fame. But on this occasion he shook his head.

'One!' he replied. 'What can't be cured must be endured. See?'

Of course the months of his probation passed more quickly than Mannering, in his impatience at the beginning, had thought possible. Until the present time he had really never understood much about love. Above all had he been in ignorance of the power of woman's love, his mother having died at his birth. And although the pallid-faced, Indian-bred boy had been the pet and darling of his father for a few years, his health, as much as his educational needs, had,

whilst he was still very young, compelled a voyage in search of English breezes and an English home. It was his weakness which thus proved the means of his preservation from the Mutiny in which his father perished.

Secure and sheltered as it was, however, the orphan lad's life had been very dreary until he met Katie! And then for him, as for all true lovers, the golden thread began to appear in the web of existence, lending a glory to the whole.

Apparently it had not been particularly difficult to preserve such very limited good graces as Mr Denovan had at first extended to him. Far too honest wilfully to deceive the clergyman, Ernest did not attempt to deny his 'little vices.' And before he had been a visitor at the vicarage for a fortnight Mr Denovan had discovered his affection both for pipe and club. The vicar had, however, made no remark; and long ago both Miss Blake and Mannering had become convinced that he had reconciled himself to such inevitable peccadilloes.

'I believe he considers you rather an exemplary sort of youth, upon the whole,' Katie assured Ernest merrily one day in October, when they were standing together near the window, watching, as well as the darkness permitted, the deplorable state of the weather. 'I wish, though, you hadn't come to-day. What a journey back you will have!'

'A trifle moist, certainly,' he laughed. And his was a most pleasant laugh, brightening his every feature. 'But I had to come in order to tell you that I can't be here on Saturday. Ellis has business at Shoreton, where, you remember, his father has some property that occasionally wants looking after. He has asked me to run down with him.'

'It'll do you good,' with unselfish promptitude. 'Dear old Shoreton! What a pity I can't be there too!'

She looked up into his eyes with a smile. All very well for a bachelor uncle to veto every lover-like demonstration. But, with the best intentions in the world, two people who care for each other, and who are mutually conscious of the fact, cannot on every occasion conceal all sign of their affection, even should they wish. And perhaps Katie did not wish. Such disobedience is conceivable.

'What a pity I can't take you!' with an answering smile. 'Do you remember that walk along the top of the cliffs, my darling?'

A question which opened the way to many reminiscences. For it was at Shoreton, whilst on a visit to the hospitably inclined Salters, who had taken a house there for the spring, that Katie had first been made acquainted with another of their guests, Mr Ernest Mannering. It was an introduction that had had results!

'But the sea will look frightfully damp at this time of year,' the girl remarked by-and-by, with a little shiver. 'It always does in October.'

'Not to mention that it owns the same peculiarity in every other month of the twelve,' rejoined her uncle, rather to her surprise. She had not seen him come into the room, her back being towards the door.

'You are so abominably practical,' she retorted, going up to him and touching his overcoat daintily here and there with her fingers. He

had but this moment returned from sundry visitations. 'Nobody would dream of dampness in August. But it isn't only the sea that is wet just now. You are to change your garments this minute, or I shall have an invalid on my hands. If you—turning to Ernest—' must really catch the seven ten, say good-bye quick and let him go away.'

'Mr Mannering'—with due propriety—'is going to Shoreton on Saturday, uncle.'

'A pleasant journey to you,' was the polite wish of Mr Denovan, who was nothing if not civil. And Katie echoed the hope as she stood by the hall-door and let the traveller out. If on such occasions a kiss were sometimes exchanged, was it very surprising? Surely even the vicar must have guessed as much.

Shoreton was certainly, during these closing weeks of autumn, not the pleasantest of haunts. And it may have been with a view to the counteraction of dullness that Ellis ultimately persuaded, not Mannering alone, but three or four other 'Chums' to travel down from London and to take up their abode with him for forty-eight hours at the Queen's Hotel.

'Though I can't for the life of me understand the reason you wanted to stop two days in this disgusting hole at all,' as Tomkins remarked, after having obtained from the sole and solitary waiter the cheering information that the theatre was closed, the Spa undergoing repairs, and no amusement of any sort or kind attainable. 'Why on earth not have put off coming till to-morrow or Monday, instead of inveigling us into such a trap to keep you going?'

'Only one Sunday train. That leaves London six A.M. Monday earliest gets in here at ten. Nine's the unholy hour friend Ford named. Slippery customer Ford, so had to agree. Come and explore. Better than getting a hump over this beastly fire. Whist afterwards.'

But even to the explorer the locality at this season was devoid of attraction. To Mannering it seemed actually a different place from the bright little spot where he had spent so many happy moments; though, in reality, the only changes were from March sunshine to October dreariness, from Katie's presence to Katie's absence. Shoreton itself had, for the few years of its existence, been much what it was now, a brand-new and still-spreading seaside settlement perched on the very verge of a cliff overlooking the Atlantic. It lay within the limits of the larger and more important borough of Upton, a town big enough and favoured enough to possess a mayor and corporation of its own, and to boast a considerable resident population. But in Shoreton almost every villa had been built with a view to summer 'letting,' and only by the business thus done during the season did the place prosper. It was owned entirely by the speculator Ford, who had bought the land some ten years since for 'an old song'—with whom, also, Ellis's present business lay.

'Disagreeable chap, folks say,' Richard explained, in answer to inquiries, as the party wandered along the deserted esplanade, making a somewhat dispirited return towards the inn. A sea fret was rising rapidly, and probably not a man of the five but was heartily wishing himself back in London.

'Never met the creature myself. Came from nobody knows where. Thought no end of here, though—Mayor of Upton, and J.P., and goodness alone knows what.'

'Here's the Queen's—why Queen's?—at last,' groaned Morris thankfully. 'Now for something hot, outside and in.'

They all tramped into the vestibule, shaking the glistening mist-drops from hats and coats. All but Mannering. He, with a half-shy, half-laughing glance at Ellis, turned off into the fog again. 'Be with you in half-an-hour,' he called back over his shoulder, in response to a general shout of surprise, to which he gave no further heed.

As a matter of fact the desire had seized him once more to behold the cliff path, where months ago he had first heard from Katie the whispered assurance of her love. And with a little smile at himself for the fancy—why do men so often mock at their softer impulses?—he set out upon the expedition. A fateful expedition it was to prove.

In spite of the gray gloom and the absence of gas-lamps, he had not much difficulty as to the road. The white chalkiness of the narrow track made itself always visible, after a feeble glimmering sort, for a few feet ahead; and though in places the way lay almost dangerously near the edge of the precipice, from the foot of which came up the sullen rumble of unseen waves, Ernest had no occasion to dread losing this guidance.

For about a mile he followed the dimly-defined threal, stopping every now and again as he reached a spot which he recognised, and when the sweet face of his gentle love seemed to recur with special vividness to his recollection. For Ernest was very young, very impressionable, and, in spite of his self-ridicule, very much in love. But he reached the end of his pilgrimage at last; and after pausing for a few moments to lean against the gate beyond which the path finally merged into the highway, and to gaze out into the fleecy blankness which to-night replaced the well-remembered expanse of shining ocean, he began to retrace his steps.

Not a single living being had he encountered upon his journey hither. Now, however, by the time that he had retraversed about half the distance, he became conscious of voices on ahead, proceeding, so it seemed, from the heart of the mirk. And gradually he was able to distinguish, by the difference of tones, that two men were conversing together in this lonely spot. Not until he was almost upon them, however, was he able to perceive either of the speakers.

'—was how Jehan find the Sahib,' were the first distinctly audible syllables that reached Ernest's ear as he advanced. They were spoken in a shrill, thin voice that seemed to cut the mist like a knife; and there was about their delivery a vibration of passion that attracted the hearer's attention even more than the quaint phraseology and the guttural accents. 'And now'—

'Who wanted you to find me?' in an angry growl, unmistakably that of an Englishman. 'You men are'—and there he changed his language, and, speaking rapidly, poured forth a torrent of sounds altogether unintelligible to Ernest. Not so, however, to the other auditor,

who, with something between a shout and a shriek, burst in upon the speech. It was just as the man gave utterance to that inarticulate exclamation that Ernest caught sight of the disputants.

They were standing close—too close for security—to the cliff's edge; one, who was tall and swarthy, and who wore a turban, being the nearer of the two. It was he who, with a countenance convulsed with fury, with flashing dark eyes and clenched fists, was hissing out words from between his shut teeth.

'The Sahib say that!' he yelled in his anger. 'But Jehan know different. Jehan see bright stones; Jehan understand where come from. And if Jehan tell'—

Neither of the pair had heeded Ernest's approach, so thick was the fog and so engrossed were they in their conversation. Even now that he was but a yard or two away, Jehan, who was facing him, did not seem consciously to observe him; whilst the short, thick-set individual who confronted the oriental, and whose back, therefore, was towards Mannering, never turned his head. Instead he spoke:

'Tell!' he echoed. 'You fool! You shall never tell'—with which he stretched out his strong right hand, on which, even in that second, Ernest caught the flash of some brilliant stone, and struck his opponent full in the face. Jehan, taken utterly off his guard, made one backward step. There was a wild, appalling shriek that rang far out over the sea, followed by another and yet another cry, each fainter than the last. Finally, there was an awful thud, succeeded by a silence. And where three men had been standing but two remained.

It was at that moment that the Englishman moved, to find himself face to face with Mannering. For the space of a full minute the pair thus strangely met could only stare. Each gazed into the other's white visage, trying, as well as the gray darkness allowed, to read the expression written thereon. It was Ernest who first regained the use of his tongue.

'Is there no way to get down?' he cried, with strong excitement. 'He may not be dead. At any rate his body must be recovered.'

His companion, taking out of his pocket a handkerchief, drew it hurriedly across his damp, pallid forehead.

'You saw it was an accident?' he exclaimed, with obvious anxiety, going up to Ernest and laying his hand upon the young man's coat-sleeve. 'Give me your name. I may depend upon your evidence?'

But Mannering shook off the touch of those fingers. 'My name! What does it matter now? Ernest Mannering, if you want it. But which is the way down?' he repeated.

For an instant yet the stranger hesitated. Almost Ernest could have fancied that he had become more agitated than before. But at last he turned towards Shoreton, with the single word 'Come.' And Ernest followed close at his heels.

It was not until they were within call of the first few scattered houses that either of the men made another observation. Mannering was too horrified, as well as too intent on rendering any possible aid to the sufferer, for speech. As to his

guide, who could tell the thoughts that were chasing each other through his brain? But when they reached a sort of gully, dark and steep, which led downwards to the beach, he broke the silence. 'That will take you to the spot,' he said. 'I will go and get further help.'

## OF TURTLE.

By F. T. BULLEN.

By popular consent the rash act of the daring man who first devoured an oyster has been greatly extolled, but what meed of praise should be awarded to that dim and distant discoverer who first essayed to break into and devour the flesh of the armour-clad tortoise or turtle? All unarmed as he doubtless must have been, except for spear of chipped flint or charred stick, the mere entry within the *domus* of the reptile, even by way of the leathery neck or flank, must have been no easy feat.

But, once having tasted such good meat, how rapidly the good news must have been spread by our friend! Here was a banquet indeed, ready to hand, for the acquisition of which none of the ordinary attributes of the chase were needed. Speed, courage, endurance, cunning, all could be dispensed with, while even the most unenlightened 'salvage-man' would hardly need the information that it were wise to avoid the front end of the sluggish creature, with its terrible jaws of keen-edged shell.

Since those far-off days mankind has been faithful in its love for the genus *Testudo*, whether terrestrial or marine, wherever edible members of it could be obtained; but when and why the consumption of turtle-soup became with us a synonym for the highest luxury in the way of food, and indissolubly associated with the royal hospitality of the Lord Mayor, is indeed a question to be answered. One may be permitted to suppose that, during the reign of some more than usually gifted *cordon bleu*, the grand discovery was made that the peculiar flesh of this succulent reptile lent itself most amicably and gelatinously to the wonderful disguise with which it is invested ere it becomes the dream of the epicure. The pages of ancient Latin writers abound with descriptions, not only of strange foods, but stranger modes of preparing them for the table, the mere recital of which to-day is often sufficient to effectually banish appetite. Among these early recipes are many for dealing with the flesh of both land and sea tortoises. According to their light those ancient cooks excelled in curious ways of dressing turtle, or rather disguising it, for it must be confessed that turtle-steak *au naturel* is not of that exquisite flavour to appeal to the palate like a plain beefsteak or mutton-chop. Good, wholesome, and tender as it undoubtedly is, it tastes more like veal with a nuance of fish than anything else in the best kinds; while many turtles, from feeding upon cuttle-fish, have a decidedly unpleasant, musky flavour. Few flesh foods pall quicker upon the palate. In most West Indian coast towns an abundant meal of turtle can be obtained for the equivalent of sixpence whenever required, but except by those whose object is to fill up cheaply and quickly, it is little appreciated.

I was once mate of a barque gathering a cargo of mahogany along the Mexican coast, and while

lying at Tonala the supply of fresh beef ran short. The skipper bought a fine large turtle for a mere trifle from some fishermen, and rather chuckled at the prospect of getting two days' meat for less than the usual price of one. He gave orders to the worn-out seaman whom, in common with vessels of that class, we carried as cook how to apportion the joints. At eight bells a procession of weary-looking men slouched aft, the foremost one bearing a kid of something. Halting at the break of the poop, the spokesman inquired for the captain. That gentleman stepped briskly forward, saying, 'Well, what's up now?' 'What d'ye call that, sir?' said the man. 'That,' said the skipper, giving just a glance at the queer-looking mess in the kid; 'why, yer so-and-so idiot, that's what the Lord Mayor gives about a guinea a hounce for. Why, only the haristocracy gets a chance at 'ome to eat the likes o' that.' 'Oh, very well,' said the man; 'p'raps you'll eat it yourself then, sir, since it's so good, and give us what we signed for. We aint crockeydiles to eat shell-fish, shells an' all.' With that he planted his little tub, with its strange contents, down on the poop and stalked forward again, followed by his scowling shipmates. I am bound to admit that there was little room for wonder that Jack on this occasion preferred *salt horse* to boiled turtle.

But this is by the way. Of terrestrial Chelones there is an immense variety distributed over almost the whole land surface of the globe where the mean annual temperature does not fall below 60°. The flesh of these reptiles is, with few exceptions, notably that of the American Terrapin, very lightly esteemed by civilised peoples, and in some species highly poisonous. A very strange fact concerning land tortoises is the presence of the largest members of the family upon such widely separated and inhospitable spots as Aldabra and Agalegas Islands in the Indian Ocean, and the Galapagos group in the South Pacific. In these lonely islets—for they are hardly more—enormous specimens of these strange reptiles crawl sluggishly about, grazing upon the scanty herbage, secure from all enemies except man, and apparently gifted with incredible longevity. As far as natural decay is concerned, they would certainly appear to be unaffected by the flight of time, although one need not believe unless he wants to the story of the sailor of one upon whose shell he saw carved the legend, 'The Ark—Captain Noah; Ararat, for orders.' The Galapagos eat them during scarcity of other food, but do not hanker after them as regular diet. They do, however, prize the fat oil which some of these reptiles possess in great abundance, and whenever they catch one and do not need its flesh, they cut a slit in the leathery skin between the upper and lower shells near the tail and take a peep within. If the victim be not fat enough for their purpose they release him, and he shuffles off apparently quite unaffected by this rough surgery. Indeed, such is the incredible vitality of these reptiles that they have been known to live for six months after having their brains entirely removed, and one existed for twenty-three days after its head had been cut off.

Redi, the well-known Italian surgeon, who made these apparently useless experiments, states that, upon opening the body of the last-mentioned



tortoise, on the twenty-third day he saw the triple heart beating, and the blood entering and leaving it. What he hoped to establish by such cruel doings is not stated by him.

The varieties of land tortoises are exceedingly numerous, and embrace some very peculiar forms, notably the *Emysaura serpentina*, which is a kind of compromise between a lizard and a tortoise, lives in and around Oriental lakes and rivers, and feeds indiscriminately upon small fish, reptiles, and birds. The *Chelodina Nova Hollandie* of Australia, with its long snake-like neck and wide gaping jaws; the *Chelys matamata*, loving stagnant pools, and adorned about the head and neck with sprouting fringes like bunches of rootlets, giving it a most uncanny appearance; and the *Gymnopus* of African rivers, which feeds upon young crocodiles, and whose flesh is nevertheless most delicate and highly prized, and many others, furnish a most interesting study, but not strictly germane to our subject, which is turtle—the *Thalassians* or oceanic tortoises, from which alone our supplies are drawn.

Among marine tortoises or turtles there is vastly less variety than among their congeners of the land. Sir Richard Owen decided that only five well-defined species are known to exist at the present time, although the fossil remains of true turtles show that a much greater range of these varieties existed in prehistoric times. The principal difference between tortoise and turtle is the shape of the paws, which in the land varieties are always armed with claws, and have a strong likeness to the legs of a lizard. In the turtles these clawed feet become flippers, almost fins, wonderfully adapted for swimming purposes, but rendering the turtle when on land more helpless and clumsy in his locomotion than even a seal.

Turtles are true amphibians, although, owing to the extent and volume of their arbitrary lungs, and perhaps also to their general sluggishness of habit, they can and do remain under water for a longer time than any other amphibian with the exception, perhaps, of the crocodile. But, like the saurian just mentioned, it is imperative that they leave the sea periodically for the purpose of laying their eggs, which they do in loose sand, leaving them to be hatched by the heat of the sun. It has been authoritatively stated that when the young turtle first emerges from the egg his shell is not formed, and that he is white in colour. Perhaps different species may account for a discrepancy here; but I can only say that, having, for many hours, along the shores of islets in the Caribbean Sea and around the Gulf of Mexico, amused myself by digging up turtles' and crocodiles' eggs, breaking them, and sending the lively occupants afloat, I have never seen either a white or a shell-less one. Of course the shell was not of the substance one would expect in a full-grown individual, but it was hard and perfectly formed, while the tiny creature was wonderfully swift in its movements. Innumerable enemies await the infant turtle, extending even to his own kind, and but a small percentage of those hatched are privileged to arrive at maturity. Nevertheless, such is the fecundity of these reptiles, that their numbers are exceedingly large, and even where old-established stations for turtle-catching exist, no diminution of their numbers is ever seen.

Having reached a weight of about twenty-five pounds, they are thenceforth safe from all enemies except man, and even he gets but scant opportunity to molest them save when they visit their favourite beaches for family purposes.

When a lad of thirteen I had the misfortune to be cast away upon one of the reef-fringed islets in the Bay of Campeche. The vessel became a total wreck, and we escaped to the islet, finding it bare of everything but an immense number of boobies and frigate-birds, the beach being covered with the eggs of the former, and the rocks plentifully besprinkled with the eggs of the latter. The first night of our stay I was taking a lonely stroll along the beach—the whole circuit of the isle could be made under an hour—when I saw a light cloud of sand rising from the smooth white plain just ahead of me. At first the idea of an inrush of the sea occurred to me; but going carefully nearer, I saw an immense black centre to the misty spot, apparently digging furiously. Hurrying back to camp, I gave the alarm, and three of the men accompanied me back. Without any difficulty they managed to secure the creature, which was an enormous turtle weighing not less than 1800 lbs. It was rather a tough job turning her over, but once on her broad back she was helpless, and was speedily towed to camp. Next morning at daybreak she was butchered, and more than eight hundred eggs, of which only thirteen were with shells, were taken from her ovary. The shell was so large that it made me a splendid bath. The meat was all removed and hung up, only the head and tail being left attached to the shell. Late that afternoon a young Dane, for some foolish reason or another, must needs go and introduce two of his fingers into the open mouth of the apparently dead head. Like the action of an iron-shearing press the jaws closed, taking off the two fingers as clean as possible. Then another man essayed to cut off the tail, but as soon as the knife entered the skin the tail curled up and gripped the blade, and it was nearly an hour before he could withdraw it. So that their vitality must be little, if any, inferior to that of the land tortoise.

One of the most favoured spots frequented by turtle is, or used to be, the desolate island of Ascension in the South Atlantic, a barren volcanic patch belonging to Britain, and, because used exclusively as a naval depôt, entered upon the books of the Admiralty as one of Her Majesty's ships. An enormous number of turtle were annually 'turned' there, and preserved in a small lagoon from shipment to shipment. It was my pleasant privilege to assist at one of these turnings, and I bear a very vivid recollection of the game. Crouched low behind an immense boulder one evening about eight, we could hear a hollow reverberating murmur of the mighty surf outside, suggesting sleepily irresistible force. A dazzling wreath of snowy foam, gleaming like burnished silver, fringed the quiet stretch of glittering sand, which, gently sloping upward and landward, was bounded by gloomy bastions of black lava. Beyond that shining semicircle of glowing white lay the sombre blue-black bosom of the quiet little bay now heaving gently as that of a sleeping child. Hither and thither, threading its inscrutable depths, glided spectrally broad tracks of greenish light, vivid, yet ever brightening and fading, as if

of living flame. Presently there emerged from the retreating smother of spume a creeping something of no very definite shape, under the glamour of the molten moonlight, but making an odd shuffling progress inland, and becoming more recognisable as it rose. Another, and yet another, and still more arrived as the shining tracks converged shorewards. At last the dark shapes came near enough for a novice to know them for turtle. Soon the first-comers reached their limit, and began the work for which they had come. Each massive reptile, by an indescribable motion of its fore-flippers, delved into the yielding grit, throwing the spoil behind it and upward withal until it was enveloped in a misty halo of shining sand. Then the whole beach was alive with the toiling Chelones and their male attendants, who shuffled about, emitting curious noises, but whether of encouragement or affection this deponent sayeth not.

Divers of them came from far—so far that none who have not witnessed the swift cleaving of their true element by these ungainly monsters could believe how the wide sweep of those eager flippers devours the fleeting leagues. In a short time many of the delving turtles had sunk below the level of the surrounding sand, while some had ceased their digging and commenced to deposit their eggs. Suddenly we rushed upon them, and for some minutes the swarming beach was apparently a scene of wild confusion. Really, the plan of attack was well ordered; and when the first scurry was over nearly all the visitors were to be seen wrong side up, waving their flippers deprecatingly. In less than half-an-hour the loneliness was again regnant, all the victims having been towed off through a gap in the rocks to a spacious spoilarium in the lagoon behind, there to await their transit to the goal of most good things, London town.

While the capture of turtle upon a sandy shore necessarily admits of but few variations, the pursuit of these reptiles in their proper element lends itself to many peculiarities. How often does the ever-hungry sailor, striving wearily to forget his plentiful lack of tasty eatables while on the look-out of some calm-bound 'wind-jammer,' get a delightful thrill upon seeing the broad shining back of a sleeping *Spharya* calmly floating upon the sunlit surface of the silent sea! Visions of 'a fresh mess for all hands' nerve the watch to desperate efforts in order to quickly free the gig from its long-disused trammels. Once afloat, there are several ways of securing the prize. Roughly, the orthodox method is for one hand to 'scull' the boat with one oar over the stern *à la Chinoise*, while one stationed in the bow may, when near enough, drive a harpoon through the carapace of the slumberer. Or one may not. And candour compels the statement that the percentage of successes is not high. If the performer be not very expert with the weapon—and very few sailors are—the result is usually a burst of angry jeers from disappointed shipmates, and a few eddying swirls on the surface whence the awakened turtle has fled in amazement.

Another way practised most successfully by the amphibious Kanakas of Polynesia is to slip noiselessly into the water, and diving beneath the turtle, grasp the hind-flippers with crossed hands. One swift and dexterous twist places the prize on his back, in which helpless position he is kept

with ease upon the surface until the canoe arrives, and he is transferred to it. Among the coral reefs of the Friendly Islands turtle-fishing is a highly favoured form of sport, and when the reptiles are surprised among the tortuous shallow channels between the reefs or in the almost land-locked lagoons, they rarely escape. Here it is usual for the fisherman to spring upon the turtle's back, and, clutching the fore edge of the shell with both hands, to hang on until his prize is exhausted and speedily brought to the surface.

But of all the fashions of securing this much-hunted creature, that followed by the ingenious fisher-folk of the Chinese littoral bears away the palm. Most voyagers in tropical seas are acquainted with a peculiar fish, *E. remora*, known generally by the trivial name of the 'sucker.' The distinguishing characteristic of this fish is laziness. Unwilling to exert itself overmuch in the pursuit of food, it has developed an arrangement on the back of its head exactly like the corrugated sole of a tennis-shoe, and as artificial in appearance as if made and fitted by the hand of man. When the sucker finds itself in the vicinity of any large floating body, such as a ship, a shark, or a piece of flotsam, whose neighbourhood seems to promise an abundance of food, it attaches itself firmly thereto by means of this curious contrivance, which permits it to eat, breathe, and perform all necessary functions while being carried about without any exertion on its part. It can attach and detach itself instantaneously, and holds so firmly that a direct backward pull cannot dislodge it without injury to the fish. The Chinese, who have successfully trained the cormorant and the otter to fish for them, have taken the remora in hand with the happiest results. Several good-sized specimens having been caught, small iron rings are fitted to their tails, to which are attached long, slender, but very strong lines. Thus equipped, the fishermen set out, and when a basking turtle is seen, two or three of the suckers are slipped overboard. Should they turn and stick to the bottom of the sampan, they are carefully detached by being pushed forward with the inevitable bamboo, and started on the search again. At last they attach themselves to the supine turtle. Then the fishermen haul in the lines, against which gentle suasion the hapless Chelone struggles in vain. Once on board the lugger, the useful remora is detached, and is at once ready for use again.

The same mode of catching turtle is followed by the fishermen of the East African coast, from Mozambique northward. The coast of Africa has long been famous for its turtle, and Pliny tells of the Chelonophagi of the Red Sea, a race of turtle-eaters, who were able to obtain these creatures of so gigantic a size that they could utilise the carapaces for roofs to their dwellings and boats for their feeble voyages. Strabo also alludes to these people; but without accusing either of these venerable authorities of exaggeration, it is pretty certain that no such enormous specimens of Chelonia are ever met with in these days.

Tortoise-shell is well known to be furnished by the turtle, the best by the Hawk's Bill variety, which supplies the worst flesh, being exceedingly musky (*Chelone imbricata*). The green turtle (*Chelone franche*) is most valuable for food, and attains, with another well-marked variety

(*Spharga coriacea*) the largest size of all turtles known. This latter has been sometimes taken on the coast of Britain, several of large size (700 to 800 lbs.) having been recorded as caught in our seas.

## ELECTRICITY IN WARFARE, AND TELEGRAPHING WITHOUT WIRES.

PROBABLY no factor has been so potent in its effect upon modern civilisation as the application of electricity to industrial and everyday life. By the aid of the telegraph and telephone, the pulse of commercial life has been enormously quickened; and many new industries have arisen which owe their existence to our constantly increasing knowledge of the subtle force. Chief amongst these are electric lighting, electro-plating, the electrical extraction of metals from their ores, and electric welding—all of which have now become daily operations throughout the civilised world. Electricity has indeed wrought a mighty and peaceful revolution, and has enabled us to enjoy advantages undreamed of at the beginning of the present century.

The use of electricity, however, is not entirely confined to the arts of peace. Military authorities were quick to recognise the advantages possessed by the telegraph for the purposes of rapid communication with all parts of an army; and as the science has progressed, almost every important discovery has been applied to military purposes. Every warlike expedition has now a free equipment of electrical appliances; and any battlefield where the armies of the higher civilised nations were engaged would possess a complete electrical installation. Owing to the advantages gained by the use of these instruments, military operations have been greatly facilitated, with the result that electricity now occupies an important and indispensable position in modern warfare.

It is obvious that for military purposes all appliances used must be of such a character as to be readily placed in position, and should be as free as possible from complications, in order that the danger of failure may be reduced to a minimum. The exigencies of active service preclude the use of many of the delicate instruments so valuable for private and commercial purposes; and for this reason it has been found necessary to design special instruments which, while fulfilling all requirements, will endure the wear-and-tear of an active campaign. A brief description of these, and the purposes to which they are applied, will show how completely the application of electricity to warfare has been accomplished.

When an expedition—such as the one at present in progress in the Soudan—is being conducted, it is of paramount importance that the advance portion should be in communication with the rear. This is effected by the telegraph, for the working of which it is necessary that wires should connect the two portions of the expedition. As the erection of telegraph poles would be totally impracticable, a special wire with a damp-proof coating is employed, in order that the wire may be laid on the ground without danger of leakage on the part of the current. The wires are coiled

on a large drum connected with a wagon; and as the latter moves forward the drum revolves so as to allow the wire to uncoil and fall to the ground. When one drum is exhausted, a joint is made with the wire on a second one; and in this manner any length of line may be laid down with great facility.

The wires having been thus placed in position, connection is made with an ordinary battery, and a special form of telegraph instrument called Cardew's 'buzzer'—invented by Major Cardew, R.E.—and, in addition, a telephone receiver, which magnifies sound, is placed in the circuit. The 'buzzer' consists of a small electro-magnet, in front of which is a thin piece of iron plate fastened at one end. When a key is tapped the piece of iron is attracted to the magnet, causing a buzzing noise, which is faithfully reproduced at the other end of the line on a similar instrument, and there magnified by the receiver. The sound continues so long as the key is depressed; and hence sounds of any duration may be communicated along the wire. Hence the Morse alphabet, in which letters are represented by different mixtures of long and short sounds, may be employed in sending messages; and in this manner intelligence may be readily and simply conveyed. Even in the battlefield communication may thus be kept up between the various sections of the army; and the advantage of this system over signalling, which may be seen by the enemy or obscured by the smoke, is quite evident.

An equally useful application of electricity to warfare is to be found in the electrical firing of mines. Formerly a fuse, consisting of a piece of tow steeped in saltpetre and allowed to dry, was employed. This had to be ignited and placed in position, and was of such a length as to allow the operator to retire to a safe distance before the explosion took place. This method, however, was totally inapplicable to submarine mines, and an additional defect was the danger of premature explosion. The present electrical system, however, possesses none of these drawbacks; and by its aid mines may be fired with certainty from a great distance and at any given moment. In order to understand the device employed for this purpose it is only necessary to call to mind a well-known property of the electric current. When a thin piece of platinum wire is placed in a circuit connected with a powerful battery it becomes red-hot; and if the current be strong enough it may even be melted. It is upon this effect that the firing apparatus used in warfare depends. Two wires from a special battery terminate in the midst of the explosive material forming the mine, their extremities being connected by a thin piece of platinum wire. Round this is wrapped a small shred of gun-cotton, which in turn is embedded in a minute quantity of fulminate of mercury, the whole being surrounded by the material to be exploded. On a strong current being passed through the circuit the platinum wire becomes red-hot and ignites the gun-cotton; this causes the fulminate to explode with such violence that the whole of the surrounding charge is detonated by the shock, and the mine thus successfully fired.

Precisely similar in principle is the contrivance used for firing large guns; in which case, however, the platinum is merely surrounded by finely-

divided gunpowder, and placed in the midst of the charge. On the wire becoming heated, ignition immediately commences, and spreads rapidly throughout the charge.

The battery used for producing the required current is contained in a box, so as to be easily carried about. On pulling a handle an extremely minute current, insufficient to cause explosion, is made to pass through the circuit, to test the accuracy of the connections. Should everything be correct, a star appears in front of a glass window placed in one side of the box; and if now the handle be turned a more powerful current passes through the wires and the explosion ensues. Thus a mine or gun may not only be fired from a great distance, but the arrangements may be safely tested—results only possible where electricity is employed.

Within the last few months great attention has been directed to the apparatus brought to this country by Signor Marconi, the young Italian electrician. By means of this it is claimed that mines may be fired and telegraphic communication established without the aid of wires, even over distances of several miles and in spite of intervening obstacles. To what extent these statements are correct practice alone can show; but there is little doubt that some apparatus based on the principle of Marconi's will ultimately revolutionise our present system of telegraphy. A simple explanation of Marconi's appliances, therefore, may not be out of place.

Most people are aware that when a note of sufficient loudness is sung near an organ, the same note may frequently be elicited from the pipe whose note corresponds to the one uttered. This arises from the fact that sound is caused by a vibration in air, each note producing a particular rate of motion of the air particles. When a note is sung, therefore, the air inside the corresponding pipe is set into a similar state of vibration, and hence gives rise to what is called a 'sympathetic' sound. Now, electricity, like sound, results from a vibration; with the difference that the motion takes place, not in air, but in the infinitely more elastic medium scientists call 'ether,' which pervades all kinds of matter. This belief led the late Dr Hertz to conduct experiments with a view to obtaining a sympathetic response to electrical waves; and after overcoming great difficulties Hertz's masterly research was crowned with complete success. He caused an electric spark—which is merely a form of vibration—to induce a spark in a receiver placed at a considerable distance and entirely disconnected with the generating source; the only condition being that both receiver and generator were in electrical unison. It is upon this remarkable discovery that Marconi's improved apparatus is based. Sparks from an induction coil playing upon an ebonite sphere are made to elicit sympathetic sparks in a special receiver; and as the duration of the sparking may be controlled by the ordinary method of 'making' and 'breaking' the circuit, it is possible to produce a Morse alphabet in which letters are represented by long and short sparks, and thus convey messages without the aid of connecting wires. Further, an electric spark of this kind will ignite gunpowder and other explosives; and by placing a receiver in a mine, firing could be accomplished without the agency

of wires, and, as Marconi claims, from a distance of several miles. Such an apparatus, if successful, would be of great service in military operations, and would add one more to the list of nineteenth-century warlike inventions, which, from their enormous destructive capabilities, are regarded by many as the surest safeguards of peace.

#### TO ONE I LOVE.

I LOVE—what do I *not* love? Earth and air  
Find space within my heart, and myriad things  
You would not deign to heed are cherished there,  
And vibrate on its very inmost strings.

I love the summer, with her ebb and flow  
Of light and warmth and music, that have nursed  
Her tender buds to blossoms; and you know  
It was in summer that I saw you first.

I love the winter dearly too; but then  
So much I owe it: on a winter's day,  
Bleak, stormy, cold, I saw you once again,  
When you had been those weary months away.

I love the stars like friends; so many nights  
I gaze at them, when you are far from me,  
Till I grow blind with tears: those far-off lights  
Can watch you, whom I long in vain to see.

I love, too, to be loved: all loving praise  
Is like a crown upon my life, to make  
It better worth your interest, to raise  
Still nearer to your own the heart you take.

I love all good and noble souls. I heard  
One speak of you but lately; and for days,  
Only to think of it, my heart was stirred  
In tender memory of such generous praise.

I love all those who love you, all who owe  
Comfort to you; and I can find regret  
Even for those poor hearts who once could know  
And once could love you, and will now forget.

Would you have loved me had you known before  
I loved so many things—still you the best?  
Dearest, remember that I love you more—  
O more a thousand times—than all the rest!

O.

READY DECEMBER 1, 1897. Price 1s.

### CHRISTMAS NUMBER OF CHAMBERS'S JOURNAL, BEING DECEMBER PART AND EXTRA XMAS NUMBER.

Will contain complete Stories by—  
**GUY BOOTHBY,**  
**J. ARTHUR BARRY,**  
**W. E. CULE, &c.**

The December part completes the volume of  
*Chambers's Journal* for 1897.

Printed and Published by W. & R. CHAMBERS, Limited,  
47 Paternoster Row, LONDON; and EDINBURGH.